

Mobilizing Senior Citizens in Co-Design of Mobile Technology

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Abstract

This paper disseminates work from the European Give&Take project, which aims at co-designing service sharing among senior citizens based on a mobile and distributed platform. With this project as a frame, our paper addresses methodological considerations of participation in co-design for ageing. Based on the notions of design culture, communities of everyday practice and situated elderliness we present accounts from two European countries, and discuss methodological issues related to mobilizing senior citizens in co-design work as they have manifested themselves and influenced the Give&Take project. Challenges for mobilization are identified, based on an analysis of attitudes and values among design researchers and senior citizens. This analysis lead us to identify and discuss three strategies for mobilizing senior citizens in co-design of mobile technology: 1) Understanding being ‘elderly’ as situated elderliness rather than closed categories; 2) Understanding how ad hoc or loosely coupled infrastructures can define a community rather than a formal, organisational structure; and 3) Understanding the nature of mobilization and motivation for participation as processes that continue, and need to be supported, also after completion of the project. These strategies have emerged in our work on mobilization and service sharing, but may apply to a broader context of infrastructuring and ongoing negotiations.

Author Keywords

Co-design, design culture, negotiation, mobilization work, communities of everyday practices, situated elderliness, infrastructuring.

ACM Classification Keywords

H.5.3. Evaluation/methodology

Introduction

Participatory design and co-design processes with senior citizens require rethinking of conventional methodological approaches for recruiting, mobilizing and continued motivation of senior participants. In the Give&Take project, new concepts for service sharing are explored, and a mobile app is co-designed with older adults to support service sharing in local communities. Our paper shares experiences from this project based on work in co-design laboratories in Austria and Denmark. Notions of *design culture*, *everyday practice* and *situated elderliness* backgrounds our accounts of recruitment from both co-design settings, and frames methodological issues related to *mobilizing older adults in co-design work*. We discuss our experiences from both settings and suggest methodological strategies based on our work. An important aim of the Give&Take co-design work was to explore and conceptualise a model for everyday service sharing in local communities in order to design a mobile digital platform running on smartphones and tablets. The use of these technologies impacted our recruitment and mobilization strategies.

Introduced terminology

Discussing strategies for mobilizing older adults in co-design work calls for some important terminological explorations, before presenting our arguments. We account for how we talk about our ‘end-users’, whether we call them ‘senior citizens’, ‘older adults’ or ‘the elderly’. We also explain what we understand by ‘mobilizing’ and how this is related to ‘recruitment’. As we will demonstrate in the following, the way we conceptualize ‘senior citizens’ and the way we understand ‘mobilizing’ are closely intertwined and both problematic in terms of generalization and categorization issues.

Senior citizens, older adults or the elderly

‘Senior citizens’, ‘older adults’ or ‘the elderly’: These three terms are used almost interchangeably in the literature. When working in contexts with public partners, there is often a focus on specific groups of citizens, e.g. municipality homecare workers and families collaborating in the care of older adults (Bossen et al. 2013), and the term ‘senior citizens’ is often used in such projects. In contrast, when applying categories of citizen groups as defined by the public authority in legal or policy documents, this often includes a specific age limitation; e.g. citizens in Denmark are offered a visitation for home care at the age of 75, and in Austria some specific benefits are available when you turn 60. However, a public authority would denote citizens receiving pension as ‘senior citizens’. Information systems-oriented research programs in the health area, like e.g. the European Active and Assisted Living programme (AAL) often refer to ‘older adults’ in a certain age span, while STS-oriented research tends to avoid any fixed categories and instead problematizes ‘the elderly’ as a category (Ertner 2015). Ertner asks if it is possible to find a position “between reproducing universalist ideas about ‘the elderly’ as a distinct group with certain needs and characteristics, and detailed ethnographic descriptions of social practices” (Ertner 2015, p 172), as both these opposite positions maintain ‘the elderly’ as a distinct group and also likely are dismissed by designers. Many of the mobilization challenges in co-design work, described later in this paper, relate to this reproduction of stereotypes about ‘the elderly’. Projects like the MIT AGNES age-suit for example allow designers to ‘wear’ an age-suit that restrict their motion capabilities in an attempt to provide a concrete experience to designers and others of what it means to be ‘old’ (Agelab, 2015; Armstrong et al. 2014). Simulators like AGNES, and other approaches that only focus on a very limited subset of what it is to be an individual person, run the risk of reducing human beings to human factors (Bannon 1991), or other over-generalized views. We have to deconstruct fixed categories like age, and avoid stereotypes depicting the elderly as being e.g. passive and fragile, in order to mobilize participants for our co-design work. This deconstruction often conflicts with formal project requirements, that focus on certain target groups with strictly specified ages, e.g. being in need for home care etc. Also funding bodies operate with fixed categories and stereotypes of ‘users’, e.g. the end-user participants required for a specific program. The sixth call within the EU Ambient Assisted Living programme (later renamed to Active and Assisted Living) presents assumptions of older adults’ occupational efficiency, which “implies that older adults are less innovative, less productive and less able to work under pressure than their younger colleagues. Empirical evidence suggests that the biggest challenges for older adults are indeed physical strain, mental stress and smaller age-related limitations.” (EU AAL 2013, p. 4). Identifying participants for projects in this program will struggle with identity issues, since strong or resourceful people with a busy everyday life will have difficulties identifying themselves with such categories, even if they according to certain definitions are ‘senior citizens’, ‘older adults’ or ‘elderly’. It is therefore highly deliberate that we view elderliness as *situated* – a perspective we elaborate below. Furthermore, the participants in our project prefer ‘senior citizens’, and disapprove ‘elderly’, so consequently, in the following we will use either ‘senior citizens’ or ‘older adults’.

Mobilization

In co-design work, mobilization plays a very central role and is not a trivial task. In user-oriented projects *recruitment* is often referred to as the process of identifying and enrolling participants, while *mobilization* for co-design is a continued activity that goes on throughout the project and is closely tied to the specific infrastructure of the co-design project. Mobilization, as we will see further down, may also extend into the

post-project and use phase as part of an ongoing infrastructuring and appropriation process. We elaborate more on this below.

When *recruiting* participants for user-oriented projects, assigning people to fixed categories will serve as the 'entrance point' for recruitment. Such categories might be age, gender, and other demographic parameters, as well as categories related to specific life situations, e.g. health, profession, physical conditions, use of drugs etc. Participants will also typically be enrolled in a fixed set of test sessions, and participants and researchers will know the format of the outcome. In explorative co-design projects recruitment is situated and closely related to how the project's infrastructure develops throughout the project. Typically, the initial 'search category' could be environments for certain activities or loosely coupled communities, in which the project will initiate recruiting based on continued interest and engagement among the participants. We call this *mobilization*.

As Olander et al (2011) argue, mobilization may be carried out by providing infrastructures for everyday innovation and through designerly interventions, such as a design laboratory hosting dialogue meetings, workshops and LivingLabs. Such approaches still leave aside the question of how, and to what effect, this engagement can also be seen as a strategy of democratization. Mobilization, in this understanding, differs from Sen (2003), who describes mobilization as one of several types of activist work by which large-scale efforts to engage the public are carried out as singular events, without expectations of continued involvement by the participants. The long-term relationship with participants in co-design work and the unhierarchical structure of the design laboratory-based working modes evoke a shared responsibility among the stakeholders to take part in the mobilization across individual interests and competing agendas. The delegation of power through participation is a core democratic principle in the PD tradition as well as in co-design work, but the shift from the conditions of a workplace inside a stable organization to a fluid intersection between administrative, public and private space poses new challenges to making democratizing strategies possible. As we discuss later Björgvinsson et al. (2010) have suggested locating the democratic force in public space in the "agonistic struggle". Agonistic democracy (Mouffe 2000) does not imply the possibility of consensus and rational conflict resolution, but proposes a polyphony of voices and tolerant disputes among groups brought together by passionate engagement in an issue. The ongoing and collective mobilization may in this way be seen as continuous re-negotiations between different voices of concern and alignment around a common goal, or in the words of Le Dantec and DiSalvo (2013) the formation of publics through shared attachments to resources in order to address a common 'cause' (further elaborated below under 'Design culture').

In co-design projects an important role of the design researcher in ensuring the continued mobilization work is therefore to create a space in the polyphony of voices and competing agendas for the individual voices to be listened to. In his book 'Design, when everybody designs', Manzini (2015) explores the nature of everyday design by everybody. In his perspective such design activities are 'collaborative encounters' (ibid), in which 'collaboration takes place'. Later in the same chapter Manzini refers to Sennett and his book *Together: The Rituals, Pleasures, and Politics of Cooperation* in which Sennett defines cooperation as "an exchange in which the participants benefit from the encounter." (ibid, p. 93). This definition also tells us that collaboration takes place when people encounter each other and exchange something - e.g. time, care, experiences, expertise - in order to receive a benefit; in this way creating a shared value.

Theoretical framing

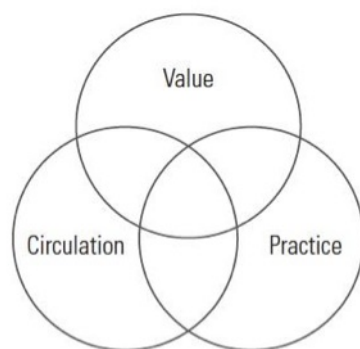
The herein presented work and discussion is situated in a theoretical framing that serves as both an inspiration for the work as such and to inform the analysis of the project findings. More precisely, the theoretical framing is constructed out of three parts, namely; 1) Design culture, 2) Everyday practices and situated elderliness, and 3) Mobilizing senior citizens in co-design work. We introduce the concept of negotiation as an alternative domain of design culture, as this captures the issues we find in handling everyday practice and situated elderliness, and how these play out in mobilizing senior citizens in co-design. The idea and role of Design

Culture is presented below and in particular in relation to how the notion of Design Culture may inform the way co-design is performed together with older adults. Everyday practices and situated elderliness revolve around the notion of communities and situated practices, and in particular challenge a generalized and stereotyped design-perspective of perceiving senior citizens as mere human factors, with more restricted movements and reduced capabilities (e.g. (Agelab, 2015)) compared with younger adults. Mobilizing senior citizens in co-design work deals with the recruitment of older adults and their sequential participation in co-design activities. The section reviews contemporary co-design projects in terms of their similarities and differences with early, classical PD projects and how these early projects mobilized participants.

Design culture

New understandings and design practices are needed in the area of ageing. First because the design is oriented towards everyday practices in mundane settings rather than towards a professional practice. Second, because monitoring approaches tend to conceptualize old age from an objective and deficit-driven perspective perpetuating a notion of ageing as an ongoing ‘diminishing’ of function (Fitzpatrick et al., 2015). Subasi et al. (2014) proposes that the concept of *design culture* (Julier 2006) is closely related to co-design and other inclusive design strategies, and their article use *design culture* to define a reflective design culture in the area of ageing motivated by the following questions: 1) How do designers perceive, define, and reflect upon ageing? The work disseminated in this paper concentrates on new, positive notions of ageing and where ageing has a social aspect, and is situated in everyday life. 2) How do designers and researchers find the right people with whom to co-explore new design ideas, and, what defines or is intended with a co-exploration of ageing? In this paper we concentrate on communities, informally organized local structures, and their everyday practices. 3) What are the roles of designers and design-researchers who work in this area? In this paper we turn to issues of the designers’ approaches, values and attitudes in design work, and especially the balance between designers’ creative skills and the effects of these skills on positive aspects of ageing.

Before we continue the exploration of these questions, we present the concept of *design culture*, as used by Subasi et al. (2014), in more detail, and how it has a potential for contributing to our way of doing co-design with senior citizens. Koh used the term *design culture* to describe how “designers think and work through different mediums. Different thought processes/approach but one common objective: to communicate. Design is a way of life; it’s all around us. We should all make things better.” (Koh, in Julier 2006, p. 70). This way of seeing design as a strategy for working towards a better quality of life through communication or negotiation within the context in which we design resonates well with how we position ourselves when co-designing with senior citizens. The concept of *design culture* was adapted by Julier (2006) as a critique of the inadequacies of a ‘visual culture’ approach in the context of design, and as a way to ask how the relationships between design artifacts, values, and users can be effectively studied. Julier demonstrates how this understanding can be used as a form of agency in order to feed into design action, and how the study of *design culture* can be both analytical and generative.



Domains of Design Culture

Figure 1: Three domains of Design Culture (Julier 2006, p. 74). We argue for substituting ‘circulation’ with ‘negotiations’ when working in co-design settings.

Through the lens of *design culture*, “design takes up a central role, as commonplace, in creating and articulating value, structuring the circulation of information and forming everyday practices. [...] it seems apt to regard design culture as a key result and expression of our times, [...] a new sensibility and attitudinal position in terms of how design is practiced” (Julier 2006, p. 72). An important essence of this position is the idea that design is not just things being put into a context, but that design plays an important role in establishing values and changing everyday practices. Julier identifies three domains of *design culture* as presented in figure 1; value, practice, and circulation. Julier sees the most important role of the designer to be creation of *value*, where value is understood as “an expanded field of activity that orchestrates and coordinates material and non-material processes results.” (Julier 2006, p. 74). While conventional design has focused on *practice*, as being how designed products are parts of consumption, the *design culture* approach suggests that practice “may be conceived as specific types and ranges of activities that Bourdieu termed as ‘fields’. Here, different practices are governed by their specific, respective rules. Practice involves routinized behavior that is both individually enacted but also socially observable.” (Julier 2006, p. 74). For the purpose of the analysis in this paper, this conception of practice aligns with de Certeau’s (1984) notion of everyday practice, as outlined below. The *circulation* domain Julier (2006) is what we usually understand as ‘context’ from a co-design perspective. This domain does not only include technologies, environmental, and human aspects, but also non-material aspects such as knowledge networks, legislation, political pressures, economic fluctuations, and fiscal policies (Julier 2006). While Julier uses ‘circulation’ to denote this ‘context’ domain, we have been searching for a term that also includes the antagonistic values that appear in co-design approaches as noted in the section on ‘Everyday practice and situated elderliness’ below. Instead of the more neutral ‘circulation’ we therefore use the concept of ‘negotiation’, in the way that e.g. Björgvinsson et al. (2010) use the term, when putting forward the idea of democratization of design processes and the concept of Things to be understood as places for negotiations. Björgvinsson et al. demonstrate how “Things also [bring] dilemmas to the surface concerning messy issues that go beyond easy problem solving or rights or wrongs, which can not easily be negotiated into consensus. In the Things [...], they are instead “played out” by small-scale experiments that through passionate engagement reveal differences between the stakeholders.” (Björgvinsson et al. 2010, p. 49).

In relation to this more antagonistic take on co-design, the concept of *publics* has also become central. Le Dantec and DiSalvo (2013) discuss how infrastructuring and attachments are central to the formation of publics, and in particular how a formation of publics foregrounds an engagement with authority structures and unknown futures through PD. They seek better perspectives to characterise the forms of social organisation and action at play in communities. Their starting point is Dewey’s notion of publics, as pluralities of voices, opinions and positions that form when issues that concern certain stakeholders require involvement from these citizens. Aligning with Dewey, Le Dantec and DiSalvo (2013) stress how a public is, not a vehicle of rationality and consensus, but a messy collection of stakeholders, who might in other settings, around other issues, be in total disagreement. Although Dewey was concerned with publics on state level, Le Dantec and DiSalvo (2013) mean that publics also operate on community level such as neighbourhoods, with groups of people organising and taking action on shared issues. An important concept in the formation of a public is *attachments* (Le Dantec and DiSalvo, 2013). When publics form, relationships to individuals, resources in the community and objects also emerge. These relationships are described as attachments and involve dependencies and commitments crucial for addressing the issue at hand. According to Le Dantec and DiSalvo (2013), attachments to issues provides a way of recognising the emergence of dependencies and commitments that form as a public forms, and further, to understand how PD can be a means for engaging with power structures and marginalisation.

In the next sections we move on to the domains of *practice* and *values*, and demonstrate how these are important for establishing strategies for continuous mobilization of senior citizens in co-design settings. In particular, we view *negotiation* as a domain of design culture that cast the senior citizens in a light where they

are not only viewed as passive consumers, but as active participants in the ongoing construction and negotiation of a progressive elderly culture. We therefore need to look beyond the perspective of professional practice, that has been a driving force in embracing ethnographic approaches into the field of participatory design and co-design, and explore the role of everyday practices, and how values, created and played out as certain attitudes among designers/design-researchers and among senior citizens, create serious mobilization challenges in co-design work.

Everyday practices, value creation and situated elderliness

Co-design in everyday settings requires other methods for mobilizing participants than in professional practices. In the latter case, participants are recruited based on their role as professional practitioners in organizations. In contrast, participatory design projects in everyday settings engage with people that may have a weak or ad hoc connection to the setting (Grönvall and Kyng, 2013) through living in a certain area or being ad hoc participants of communities only loosely coupled to the setting. In our co-design approach we explore *everyday practices* as a framing and starting point for engaging participants in design as suggested by Brandt et al. (2010).

Communities of practice and situated elderliness

Early research in Participatory Design embraced *practice* as a lens, through which we can understand everyday life as a social construction of reality (Ehn, 1993). It puts a focus on what people really do in contrast to how work activities may be described by others through representations of work, e.g. work descriptions and work flow diagrams (Robertson & Simonsen, 2012). In addition, understanding practice also emphasises a recognition of the tacit knowing workers possess, and how this can be put into play in design (Ehn, 1993), as “practice is both ‘doing’ and ‘understanding’ that enables doing” (Wynn, 1991, p.46). Hence, the understanding of practice, as applied in current co-design approaches, has to a large extent been developed in relation to, and sometimes within, theories on learning, for example Schön’s notion of the reflective practitioner (Schön, 1987), and Lave & Wenger’s theory on situated learning (Lave & Wenger, 1991; Wenger, 1998).

In his epistemological analysis of professional knowledge, Schön (1987) describes professional practice as a context where professional knowledge is applied. Professionals in a particular practice share a field of knowledge, and are active in specific institutional settings, e.g. courts, schools, hospitals, etc. Furthermore, a practice is divided into activities, each one related to recurring situations that demand a certain kind of knowing, i.e. a court case, a laboratory exercise, a patient case, etc. The established ways of approaching a situation, and taking appropriate action, emerges from a value system that is shared by the members of a professional practice (Schön, *ibid*).

While Schön focus more on the individual practitioner, the concept of communities of practice is based on anthropological studies of collective activity, learning and apprenticeship among e.g. tailors, midwives and A.A.-members: “In using the term community, we do not imply some primordial culture-sharing entity. We assume that members have different interests, make diverse contributions to activity, and hold varied viewpoints. In our view, participation at multiple levels is entailed in membership in a community of practice. Nor does the term community imply necessarily co-presence, a well-defined, identifiable group, or socially visible boundaries. It does imply participation in an activity system about which participants share understandings what they are doing and what that means in their lives and for their communities” (Lave and Wenger, 1991, p. 97-98). Lave & Wenger emphasise the strong relations between people, actions, knowing and context, and underline the development of *identity* in a practice as a central element in the process of participation for a newcomer to a practice (Lave & Wenger, 1991). The newcomer’s access to a practice begins in its periphery, in forms making participation legitimate for existing practitioners, e.g. performing work activities under supervision from an experience practitioner, and with limited responsibility. The participation then gradually develops into full participation in a process driven mainly by increased value of

participation, development of identity and the urge to become a full practitioner. Originally the notion of communities of practice was used to understand situated learning in organizations, but it has also become influential in participatory design as a way of understanding relations between different user groups in a specific context [8]. In later writings *communities of practice* is described as “groups of people who share a concern, a set of problems, or a passion about a topic, and who deepen their knowledge and expertise in an area by interacting on an ongoing basis” (Wenger et al, 2002, p. 4). From that perspective, communities of practice resembles the notion of *publics* by Le Dantec and DiSalvo (2013) as also described in this paper.

An expansion of the concept of communities of practice to include everyday practices outside work, could be denoted as *communities of everyday practice*, where senior citizens similarly are skillfully enacting everyday practices as seniors, and also develop their identity as senior citizens. They start to enact what we would call *situated elderliness*; including activities that have become more challenging to carry out. It could be related to the individual, e.g. mundane activities like not being able to pull up one’s socks or stockings, or to external changes, e.g. when a bank requires all transactions to be carried out via Internet. Changing bank practices may suddenly cast senior citizens in a new light as ‘being old’ due to their current lack of Internet experience. This highly contextual designation of people as ‘old’ is *situated elderliness* (Brandt et al., 2010).

Everyday practice and situated elderliness

The question is whether these established interpretations of practice, emanating mainly from studying work settings, are sufficient to embrace all aspects of living in situated elderliness, as we describe it here. Our doubts have led us to consider other interpretations, and one source that seems particularly relevant for understanding practice in everyday life rather than work life is de Certeau’s (1984) notion of ‘The Practice of Everyday Life’, in which language is used as a guiding metaphor to describe our everyday practices. Traditional studies of work practice render it as structured through an intersubjective, collective understanding of what is competent and appropriate behavior in a particular work setting, and structuring conditions emanate as much from the work situation as from established craftsmanship. The rule-following is here constitutive of the practice itself. In contrast, de Certeau points towards a more open-ended understanding of practice, in which a multitude of behaviors, sometimes challenging rules or resisting the structuring conditions of everyday life, are reflections of the endless variety of aspirations and motivations of urban citizens. The aim of de Certeau is to bring forward from the background, and make possible further exploration of, the “ways of operating” or doing things in everyday practice. He is not concerned with the individual, but rather to make explicit the systems of operational combination, which also compose a “culture”, of consumers. It is based on studies of popular culture, which relates to our understanding of everyday context as opposed to work-related contexts, and in particular three articulations: (1) usage, or consumption; (2) the procedures of everyday creativity; and (3) the formal structure of practice. In consumer production, many studies focus on representations of society (e.g. television broadcast) and their modi of behaviour (e.g. watching television). In contrast, de Certeau focuses on *the use* of these and similar social phenomena, e.g. what the cultural consumer “makes” of television broadcasts, supermarket products, newspaper stories, urban space, etc. This production or *consumption*, which is also a focus for Julier (2006) in his conceptualization of design culture, manifests itself invisibly in its ways of using the products imposed by a dominant economic order. In applying a language metaphor to describe this consumption, de Certeau differs between performance and competence, in that the act of speaking is not reducible to language knowledge. His focus is the analysis of open ended consumption, as a collective act of speaking, in all its variations to adapt it to the interest and rules of the consumers, and determining the procedures, bases, effects and possibilities of this collective activity. De Certeau strives to uncover the consumer’s ways of operating as a counterpart to the mute processes that organise the discipline of socioeconomic order. These operations deflect the functioning of technocratic structures through a multitude of “tactics” articulated in everyday life, and form the anti-discipline that de Certeau seeks to describe. In order to grasp the formal structures of these practices, de Certeau has carried out descriptive investigations of everyday practices, as well as analytical investigations of scientific literature.

In our interpretation and application of this perspective on the everyday practice of older people, this open ended consumption, as a collective act of speaking, manifests itself in three ways that forms part of the argument for *negotiation* as a domain of the co-design culture with elderly that we study. *First*, the elderly is not a homogeneous group, which is reflected in our suggested notion of situated elderliness. The kind of engagement we expect when we mobilise elderly is therefore not characterized by alignment of goals and formation of intersubjective understandings around a common issue, as in early work-related co-design projects (see e.g. the Utopia (Bødker et al., 1987) and Florence (Bjerknes and Bratteteig, 1987) projects). Rather, we expect the mobilization of older people to resemble Things to negotiate dilemmas (Björgvinsson et al., 2010) or agonistic democracies (Mouffe, 2000), that accommodate a range of differences in goals and aspirations or scepticism, and even resistance towards the digital technology we introduce. *Second*, a central aspect of the type of consumption that is manifested in the use of the digital sharing platforms we envision, is the fact that the elderly produce the main part of the contents. Concerns regarding e.g. what and how to share appropriately, or issues regarding e.g. privacy, therefore will be directly reflected in their ‘collective speaking’ through the platform, which may deflect the designed functions through their articulated tactics. *Finally*, perhaps the most important aspect of the mobilization of elderly we describe here, is that the production/consumption that is enabled through the digital platform we design, their tactics and ways of operating, is in the longer perspective potentially an on-going production of a new elderly culture. Ultimately, what they ‘make’ of the content produced and distributed on the platform, may shape new ways of ‘becoming older’, and new forms of situated elderliness.

Participatory Design – mobilizing participation

Throughout the evolution of co-design, diverse strategies have been developed and applied to recruit and mobilize diverse participants in co-design activities. During the last 40 years, this also includes a shift of setting for co-design activities and use, and the underlying goal of co-design. Co-design has a long tradition to be used in professional work settings. Early Participatory Design projects (Bødker et al., 1987; Bjerknes and Bratteteig, 1987) engaged workers in workplace situated co-design processes of professional tools. These workplace-oriented design processes are often referred to as the second wave of HCI (Bødker, 2006). When designing for home-based, or other non-work related settings and contexts we enter in what Bødker defines as the third wave of HCI (Bødker, 2006). A challenge that our project shares with other third-wave projects is that the envisioned users (in our case active older adults) may be more heterogeneous and have less shared goals and interests compared with workers of the second wave workplace situated co-design processes. Also, when we involve these heterogeneous people in third wave co-design processes, the reason why people participate and their motivation for doing so may be very diverse and different from a work-place situated co-design process.

A challenge with the early PD projects was that very few produced sustainable post-project solutions in terms of technology. While outcomes such as learning, processes and teaching materials were all tangible outcomes, few managed to implement and use a technology for a longer period of time (Simonsen and Robertson, 2012). Implementation and use of a technology for a longer period of time has remained a challenge for many contemporary, third wave co-design projects (Grönvall and Kyng, 2013). A direct challenge is to find someone to ‘productify’ research outcomes, sell and market them and maintain and support these products and systems over time once the original research funding is finished. Kyng proposes a model to work where organisations are established as part of a PD process to safeguard the diverse stakeholders’ interests and that may cater for a post-project responsibility in the developed systems and ideas (Kyng, 2015). The establishment of such an organisation may resemble infrastructuring work (Star and Bowker, 2006) in that it may cater for an ongoing design process after the initial project is concluded, and that the goal of the initial project moves from design-for-use towards design-in-use, so-called ‘designing for design after design’ (Björgvinsson et al., 2010; Seravalli, 2012). Infrastructuring work has in our project been identified as a key aspect of our co-design work as our goal is to design for real, future use. Rather than constructing a new organization as exemplified by Kyng, our project involves two commercial companies that do participate with the key focus of developing commercial platforms through the project. Also, a municipality participates as both a future (potential) customer of the developed systems and as a key collaborative stakeholder when the

developed services are put into use. Before we present the actual mobilizing activities in the project, we describe the prototype of the mobile app for sharing that has evolved during our co-design workshops.

The Give&Take project

In the Give&Take project, researchers, SMEs and end-users co-design a reciprocal sharing-service for a good senior life. Through engaging senior citizens in dialogue meetings, workshops and LivingLab activities, we design a service that empowers senior citizens to maintain societal engagement as a key to mental, social and physical well-being. There are strong societal macro trends and documented positive effects of senior citizens' prolonged professional activity and voluntary work. The technological solution comprises a mobile platform for knowledge and experience transfer by making skills and competencies visible in local communities. Participants in the co-design activities in the Give&Take project are citizens from local senior communities in Frederiksberg (Denmark), and Vienna and Schwechat (Austria). The project runs for three years and started May 2014. Project outcomes are continuously documented on the official project website (Give&Take, 2015).

Methodologies of the Give&Take project

The Give&Take project combines the Design Laboratory, an innovative methodological platform for co-design and user involvement, with LivingLab and Open Community approaches. Design Laboratories facilitate open collaborations between many stakeholders (e.g. researchers, industrial partners, senior citizens, senior organizations, municipalities etc.) sharing a mutual interest in design research in a particular field. LivingLabs are design and experiential environments that allows us to understand and evaluate the Give&Take sharing concept and platform in an everyday context. The core of the process has been a series of co-design events where all stakeholders participated in activities that focused on mutual experimentation and learning. Interaction with design laboratories was carefully planned to allow continuous mobilization of and feedback from senior citizens in the different phases of the project development. The Give&Take mobile platform prototype has been (and is still being) developed through iterations between sketches, wireframes, specification, design, development and evaluation.

The Give&Take platform

The Give&Take platform is developed by the Give&Take consortium and is today available on any mobile or stationary platform through a standard Internet browser (see Figure 2). The system requires every new user to register and login to the system prior to use. The sign up routine requires a new user to enter his or her name and to pick a personal username and password. Email is optional as not all senior citizens may have an email beforehand. After a successful login, the user is forwarded to his or her main screen. The main screen displays recent activities from all the communities in which the user is a member and allows the user to individually browse the diverse communities in which he or she is taking part. The user may also join new sharing communities from the main screen, for example by searching for a community that focuses on some particular interest or type of service sharing. Once the user has joined a specific community, he or she may enter that specific community. The user may also see his or her profile, edit information and log out from the platform.

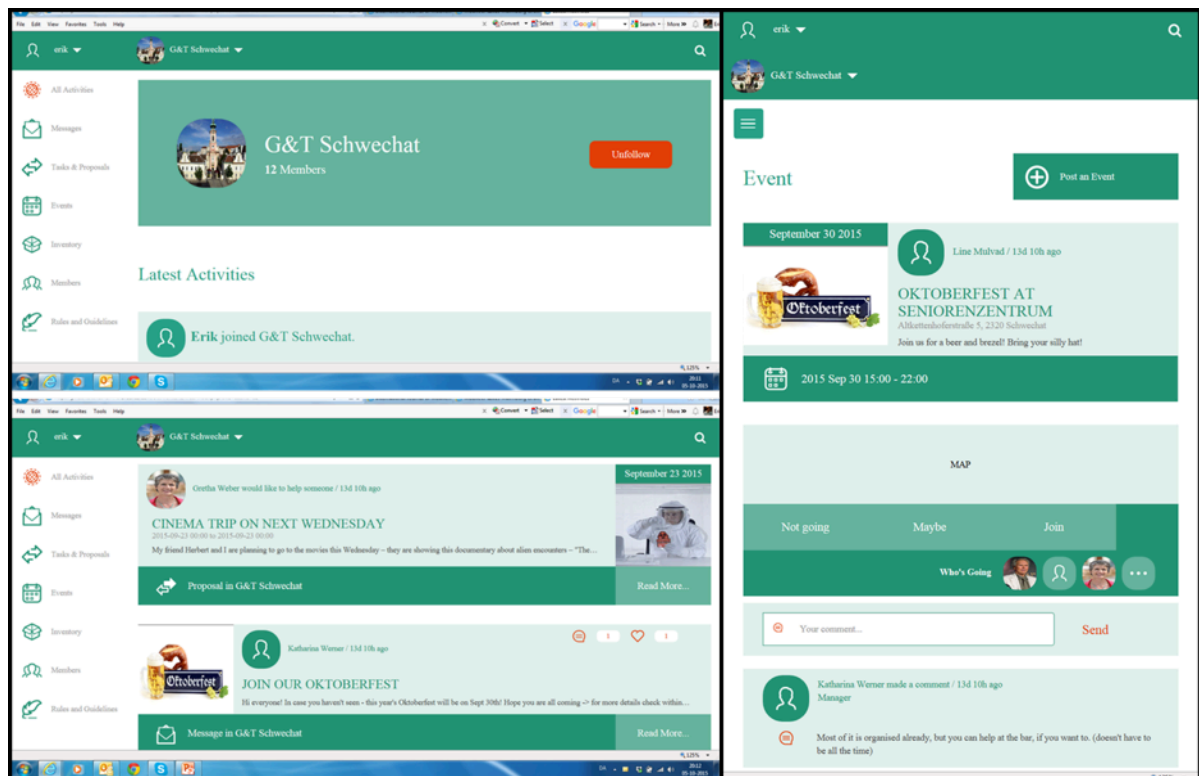


Figure 2: Screenshots from the Give&Take platform. (Upper left) Community view, (Lower left) Proposed activities for the community and its members, (Right) The activity view.

In the community view, information about the community is given, including the number of members, as well as upcoming activities and service sharing requests posted by this particular community's members. The user can now learn more about, and enroll or agree to, events and service sharing proposals created by the community's members. From the community view, the user may also create events and propose services that will be shared with the other community members. There is a message thread connected to each activity or service sharing proposal, enabling community members to discuss details, make agreements etc. There is also a 'Like' functionality so the community members may show appreciation for proposed activities.

The core functionality of the system as described above may not be so advanced in comparison with existing social network sites such as Facebook. However, the Give&Take sharing platform is built to be simple (as not all future users can be expected to be computer literate) and to be adoptable to different sharing communities and their unique needs. Hence rather than developing a complex system that may be perfect for a specific type of activities or communities, the Give&Take platform allows different communities to adapt and use the platform in the way that fits their specific needs and challenges. From that perspective, the Give&Take platform can be perceived as a meta design, or infrastructuring.

Give&Take: experience on mobilizing senior citizens

We will now look at how we worked with mobilizing senior citizens in co-design at the project sites in Denmark and Austria.

Mobilization in Frederiksberg, Denmark

The Danish site is located in an urban environment with about 100.000 citizens, which forms a separate municipality within the capital of Denmark. This municipality is a partner in the project.

Selecting communities

In the *Frederiksberg* setting, we approached selected local senior communities to engage senior citizens in the project, with one of us acting in the capacity of municipality representative. First, existing senior communities in the municipality were identified, from searching through publications, doing Internet searches and consultations with municipal officers working with voluntary organizations. Their knowledge, however, was primarily focused on the larger more formally organized senior communities, and therefore the municipal social workers were also consulted in order to identify the smaller, and more locally based, informal senior communities. Those informal senior communities were typically located in a specific apartment building or neighborhood. In this way approximately 100 large and small senior communities, each with different characteristics and focus, were identified in Frederiksberg. These communities were assessed to find the most appropriate for including in the project. Senior communities should: 1) potentially involve several generations, 2) have local presence in a neighborhood, 3) be linked to other nearby senior communities, 4) have a gender balance, and 5) represent different social groups and interests. The communities we finally selected, that in various ways could accommodate the established criteria, are listed in table 1.

Community name	Community type	Approximate no. of members
Domus Vista bibliotek	Library	30
Hjertestien	Walking club	40
Stjernens hyggeklub	Social club	25
Ældresagen Frederiksberg	DaneAge, a Danish NGO for older adults	10000
Hovedbiblioteket	Library	25
Frederiksberg Frimærkeforening	Stamp collector's club	500
OK Kram klubben	Social club	850
Hovedstadens Røde Kors	Volunteer organization	1900
Frederiksberg sogn	Parish community	110

Table 1. Final selection of communities in Frederiksberg.

First contact

The next step was the contacting phase. For the larger communities it was unproblematic to identify the key person, e.g. the chairman, but for smaller communities this often required assistance from municipal social workers. The key people were contacted and a preliminary meeting with representatives from the community was arranged. At the meeting, the project and co-design process was introduced through visuals and text. The introductory information was frequently revised and adjusted according to the experiences gained and to the specific senior community. In general the key people received the project with a positive attitude. Most stressed the importance of community. They expressed concern for those senior citizens who were not part of a community, and consequently risked social isolation and loneliness. At the same time several expressed concerns about the digital focus of the project and questioned many senior citizens' digital skills. One community was extremely sceptical in that regard. The reason for the scepticism could probably be explained with the fact that this community taught basic IT skills to other senior citizens and therefore had a specific concern for the IT challenged senior citizens. Part of mobilizing citizens is to be prepared for listening to and

accepting such concerns. In spite of these concerns all key persons got curious and opened the necessary doors for the project.

Mobilizing activities: dialogue meetings

After the preliminary meetings with the key persons from the different communities a recruiting process was initiated with the aim of conducting dialogue meetings with each selected senior community. The recruiting process was carried out in different ways. In some instances a representative from the project came out and presented the project and in other instances the key person did the presentation. To support the recruiting process a leaflet (see figure 3 or figure 7 for the Austrian leaflet respectively) was prepared and distributed in the selected communities.



[figure 3 here, put 3a and 3b next to each other]

Figure 3: Leaflet informing about the project and used for recruiting participants at Frederiksberg.

Under the headlines “better quality of life, good relations and local communities” the leaflet described the intentions and ambitions of the project just as the wish for active involvement and participation from the senior citizens was emphasized. Also the leaflet referred to the project homepage where these themes were described in more detail. The leaflet’s language communicated directly to the senior citizens and focused on them as citizens with experiences, resources and skills that they could pass on to the project. It was also emphasized that all seniors were welcome and could contribute with their individual wishes and visions. There was thus no requirement for specific competences beyond the desire for participation.

On the basis of the recruiting process dialogue meetings were conducted with each of the nine senior communities with the participation of between 3 to 8 senior citizens, all together approximately 50 senior citizens. At each dialogue meeting, co-design activities were organized to explore three questions: (1) where do we meet and what do we meet around? (2) What can we share? and (3) Are there others we can invite? It was primarily from this group that the project subsequently recruited participants to the workshops in Frederiksberg, where the senior citizens from all nine communities met each other and participated in the workshop activities. In the subsequent workshops, potentials for sharing have been explored across communities, and senior citizens have been engaged in co-design of a first prototype demonstrated on a tablet computer to support service sharing. The most recent version of the Give&Take prototype was demonstrated at a major public event at Frederiksberg Town Hall. This also acted as a platform further mobilization of senior communities (see figure 4).



[Insert figure 4 here]

Figure 4: Poster prepared for further recruitment and mobilization at Frederiksberg event.

Summary - mobilization in Frederiksberg

In summary, the project in Frederiksberg has established contact to seniors which reflected the ambitions for the recruiting process. The broad approach with contacting a range of different senior communities secured for the project a group of heterogeneous seniors with very different backgrounds, educations, assumptions and visions. The main differences are in the focus of each community (e.g. exercise, social activities, voluntarism or stamps) and the location of the communities. For example, several of the communities are located in the most socially marginalized areas of Frederiksberg (Domus Vista and Stjernen), while other communities are located in traditionally prosperous areas (OK Kram club and Frederiksberg Parish). In spite of the differences, it is actually possible to define some characteristics of the participating seniors in Frederiksberg. First, despite our specific attempts to recruit men from traditional male communities (e.g. the Frederiksberg stamp collector's club), it must be acknowledged that more women than men take part in the communities in Frederiksberg. Second, there are no seniors with other ethnic background than Danish. This is a reflection of the sad fact that non-Danish seniors still do not participate in many traditional ethnic Danish senior communities.

Third, the participating seniors must for the most part be characterized as resourceful people, who have chosen a busy and active senior life. Finally, they are also characterized by being curious and have generally met and participated in the project activities with an admirably open approach. What this group of

heterogeneous seniors specifically has meant for the progression of the project in the first year of the project is still too early to document. However, it has given the project the opportunity to learn from a variety of senior experiences and backgrounds and has stressed that it in terms of research no longer makes sense to consider older people to be a particularly homogeneous category.

Mobilization in Vienna and Schwechat, Austria

The Austrian sites are located in a central respectively a suburban area of Vienna, without any municipality representatives in the project.

Selecting communities

In the *Austrian setting* there was no support from municipalities or the like to identify possible participants. Two approaches for recruitment were followed depending on the local constraints and possibilities of the two chosen cities. For the city of Schwechat this comprised contacting participants of former research projects in the LivingLab Schwechat (Hlauschek et al 2013) and putting posters onto the information board of the local senior citizen centre promoting the project and inviting interested people to a first meeting. As it was not possible to fall back on already existing contacts in that area, a different strategy had to be implemented in the Vienna setting. Similar to Frederiksberg it was investigated ‘what is already out there’ and existing sharing communities and communities which mainly target older adults in Vienna have been identified via Internet search and taking part in local events. This resulted in 16 sharing projects and 14 larger organizations, which were connected to senior groups or communities. The communities we finally selected are listed in table 2.

Community name	Community type	Approximate no. of members
Neighbourhood Centre Rennbahnweg, Vienna	open community, location based	10000
City of Schwechat	open community, location based	16000

Table 2. Selected communities to take part in subsequent project stages in Austria.

First contact

Interviews were conducted with key people of some of these selected sharing communities about the background and motivations of their groups and their way to mobilize people. Having established a first foundation of trust, a couple of events organised by these communities have been attended to get a better sense about how the community works and who are its members. The insights we gained in that phase served as starting points to find an appropriate community where a new LivingLab for end-user engagements in the Give&Take project could be established within the 14 communities identified earlier. With one of Vienna’s Neighborhood Centres a community meeting the same criteria as the ones participating in Frederiksberg was found. It is in charge of around 10000 people living in a close neighbourhood and offers space and support for a wide range of groups organized by volunteers of the centre.

The main motivations for the social workers leading that neighbourhood centre to join the project were twofold; “It would be great, if the platform helps to create a network between the people living in this residential area [...] people living in the same block don’t even greet each other when they meet in the staircase.” [social worker at neighbourhood centre] Even though so many people live in such a close vicinity, people hardly know their own neighbours and so loneliness becomes a big problem, especially among older people. Therefore one of their aims of being part of the Give&Take project is strengthening social contacts and getting those people engaged who are not already part of a community. The second aim is to simply take burden from themselves via the platform as organising sharing activities between the people living in the

neighbourhood demands a lot of effort from the centre’s social workers and volunteers and keeps them away from their actual work taking care of the people living in the area. The group of people recruited as initial group in the Give&Take project in Schwechat differs in some ways from those in the Vienna setting. There is no central organisation around these people or no interest they currently meet about regularly, they just want to share, engage and help other people engage and starting a more active and social life.

Mobilizing activities

Having established first contacts in both settings, we started the process of mobilizing people to become part of our project by joining or setting up events in their familiar environments. A first step into the community around the neighbourhood centre and getting to know more about its members was being part of the “day of sustainability” at the centre. To get a better understanding about what, where and with whom they currently share or would like to share, in case they currently don’t, visitors of the event have been involved in several tasks. At the end each visitor was handed a probe to get deeper insights into what defines ‘a good day’ within their neighbourhood (see figure 5). These probes were then returned to the neighbourhood centre and picked up by the project team.



[Insert fig 5a-c here]

Figure 5: Images of the probe given to the visitors.

In Schwechat senior citizens were invited to be part of an introductory meeting organised by Give&Take at their local senior citizen centre. Dialogues about their current sharing habits and practices were followed by a role play where each participant either took on the role of a ‘giver’ or ‘taker’. At the end of the play it was discussed, how they felt in that role and how Give&Take could support these roles and sharing in general in their local context.



[insert fig 6a-d here]

Figure 6: Some impressions of the co-design activities in Austria

At each site two co-design workshops have been conducted. The aim of the first round of workshops was to make the participants imagine what the Give&Take platform could do for themselves or a set of prepared personas, which were developed based on the meetings mentioned above. The co-design activities were driven by the questions “What are the persona’s wishes for a platform like Give&Take? What would he/she want to use it for? How can this be transferred to myself or people I know? How can I play a part in such a platform? How can I benefit? What other people might be involved?” The user stories derived from these activities led to the design of a first non-functional prototype. In the second round of workshops this prototype was used as a base to further discuss and define issues that still seemed to be unknown to the project team, e.g. if or how sharing activities should be valued or what kind of information they want to share with other community members. Each participant was assigned either the role of a “giver”, a “taker” or “a lonely person” and performed the workshop activities taking on that role. The resulting prototype was demonstrated in two smaller and one main public event in the city of Vienna. This resulted in a larger group of senior citizens showing interest to take part in the further steps of the project and also raising interest at the main provider of senior residences in Vienna to become part of the Give&Take LivingLabs in the 3rd year of the project.

Summary - mobilization in Vienna and Schwechat

A lot of time can pass between different phases or activities of user involvement in research projects. For a continued mobilization of people it is very important to keep an eye on the project’s visibility and to stay in touch with people already involved in the project. In Vienna the project team keeps the project visible in the area and makes the LivingLab grow through taking on an active role in local events and putting poster-invitations to events organised by the Give&Take project into the neighbourhood’s buildings (for an example see Figure 7). Additionally articles about the Give&Take activities were included in leaflets that are published quarterly by the neighbourhood centre and sent into each household. The activities in the LivingLab Schwechat were similar ranging from showing visibility by participating in some of their events and keeping the participants updated about the project’s progress by regular newsletters.



[Insert fig 7a-b here]

Figure 7: Brochure about the Give&Take project and poster announcing a Give&Take activity

Analysis: Values, attitudes and actions among co-design participants

Designers and design-researchers as well as participating seniors enter co-design projects with certain values and attitudes that affect the recruitment and mobilization process. In this analysis we look into experiences from the two sites to reveal values and attitudes that affected how recruitment and mobilization work took place in the Give&Take project.

Designers and design-researchers

For designers and design-researchers we observed the following values, attitudes and actions with importance for recruitment and mobilization activities.

- Identifying an entrance for recruitment
- Identifying loosely coupled communities
- Ways of perceiving, defining and reflecting upon ageing
- Lack of respect for busy life of senior citizens
- Difficulties creating trust

Identify an entrance for recruitment. All user-related projects need to identify entrances for recruitment; regardless of if these projects apply co-design or not. In the Give&Take project we had different entrance points at the two sites to recruit participants, caused by the project partner construction. At the *Frederiksberg* site the municipality project partner allowed us to have an ‘official’ entrance for recruitment. Even if this could look straight forward it caused a lot of discussions based on values and attitudes. For example was the municipal representative in some cases reluctant to enter a community because it already was part of other projects (some areas are targeted by several opportunistic and politically correct initiatives becoming ‘over-subscribed’ communities) causing the associated, local social-worker stress in everyday work. We experienced the design-researchers pressing for contacts to ‘ideal’ co-design environments while the municipality representative acted protectively towards his colleagues in the local communities. According to experience from other projects with public partner participation (Brandt et al., 2012), a municipality representative acts in a complicated political environment in which outspoken or hidden political agendas, policy making and budget matters might influence project decisions and agendas. However, the municipality partner in the Give&Take project has apparently acted in an open and honest political manner, in which we never had the impression of hidden agendas. In the *Austrian* setting the entrance for recruitment was challenged in other ways since we did not have an Austrian municipality partner. A combination of hard work, announcements in local areas, coincidences and existing networks was used as described earlier in the article. A risk by this approach is a ‘take-what-you-can-get’ situation, where any recruited senior counts. Difficulties and value tensions have probably rather been between the design researchers at the two sites, because Danish researchers have been pushing Austrian researchers to come up with the same kind of environments as at the Frederiksberg site, with little acknowledgement of the difficulties caused by not having an ‘official’ municipality entrance ensuring overview of, and direct access to, local communities. Another risk of this approach is that seniors recruited through earlier project networks expect methods, goals and working modes similar to the former projects. It becomes difficult for the design researchers to introduce new values; new ways of working and new project goals.

Identifying loosely coupled communities. In the project the aim was to identify loosely coupled communities. We could then mobilize citizens affiliated with these communities, based on interest or location, and co-design the mobile platform together with these citizens, in order to grow and strengthen the community, and open up opportunities for additional sharing of services. By avoiding to start from scratch, we expected to smoothen the continuous mobilization. In *Frederiksberg*, finding loosely coupled communities was not too difficult, since the municipality already maintained an extensive catalogue of community initiatives. After discussions in the project group, we decided on nine communities, where we had dialogue meetings as preparation for the following workshops. These communities were a mix of interest based and location based networks. During these dialogue meetings we also got a sense of whether continued mobilization would be able to take place through the specific community. In *Austria* the aim was not to locate communities already coupled through shared interests, but to rather use the Give&Take project to „involve the currently uninvolved“ and create new communities. Therefore design researchers needed to spend extra efforts to identify existing but hidden common interests among very loosely coupled communities or seed such interest networks along the project.

Ways of perceiving, defining and reflecting upon ageing. This is probably the value or attitude among design researchers causing most friction in our mobilization work. We struggled to avoid using fixed categories to describe our participants internally in the project, and even more important when we approached potential citizen participants. When we used terms like ‘older’, ‘elderly’ and ‘seniors’, we often met resistance or

reluctance towards participating in the project. Listening to and accepting subjective experiences of age are probably the best ways of not falling into the trap of unwarranted categorization in the mobilization work. In *Frederiksberg* we met reactions (from citizens in their early 70's) like "Oh, I am not old, but my neighbour who is 93 years, she is old." Also reluctance towards spending time in communities with members categorized by being for example retired citizens was not always received well. In *Vienna* one participant even brought her mother along, because she thought that "this is more for her than for me", but during the co-design activities she realized that the platform could actually be "something useful for myself". Many citizens, that we approached in *Frederiksberg* stressed that they want to have a broader variety in their relationships; especially regarding age. Also our expectations about mobile technology use among seniors was challenged in the way that no generalization is possible at the Danish site. Some citizen participants use smartphones and tablets on an everyday basis while others have very little or no experience. This seems to be slightly different at the Austrian site, where we have met a stronger resistance towards, and less experience with, advanced mobile technology. However, we note that those people more actively involved in community activities seem to be more likely to use these kinds of technologies.

Lack of respect for busy life of senior citizens. We were often accused of having wrong assumptions about retired citizens' calendar. Through the project we learned that retired citizens often have a very busy calendar, and that we need taking this into consideration, instead of just expecting them to be able to follow our project calendar. This observation holds for both the Danish and Austrian site, and is not a unique observation for the Give&Take project, but found in similar projects working with senior citizens (Grönvall and Kyng, 2013).

Difficulties creating trust. For the past decade, most societies have witnessed a considerable decrease in public service in the elderly area. This has created a situation in which many initiatives with municipality participation generate a natural skepticism by the senior citizens, because they fear hidden agendas of yet another saving-public-resources initiative. As researchers we need to accept this skepticism and work with it in a constructive way. In *Frederiksberg* this became evident as we have a municipal partner acting as contact point for mobilization of citizens and because an explicit goal of the project is to engage citizens in mutual service sharing with the potential of saving public expenses. In *Austria* the researchers have less challenges with distrust and hidden agendas, probably because there is no Austrian municipality partner represented in the project.

Among the senior citizens that we approached for potential participation in the project we also met attitudes and values, that made both recruitment and continued mobilization difficult. Below we analyse the attitudes and values we identified through our mobilization work at the three sites, and point to some specific actions to accommodate these. As researchers we can attempt aligning our values and attitudes towards establishing a well-designed continued mobilization, while we have to accept and adapt to the values and attitudes among the senior citizens.

Senior citizens

For senior citizens we observed the following values, attitudes and actions with importance for mobilization and recruitment activities.

- Resisting being identified as 'old'
- Lack of belief to have something to contribute
- Fear that technology creates loneliness
- Fear of digital illiteracy or no interest
- Feeling uncomfortable with co-design methods
- What's in it for me?

Resisting being identified as 'old'. As mentioned above in the analysis of 'Ways of perceiving, defining and reflecting upon ageing' among researchers, many senior citizens struggle to avoid attempts for unwarranted

categorization they encounter from the public sector, research projects etc. As researchers we have to respect this resistance towards being categorized according to biological age, and find other ways of addressing, recruiting and mobilizing seniors based on what we earlier conceptualised as *situated elderliness* (Brandt et al., 2010). One possible way of mobilization is to approach communities that are defined by location or interest, and in this way avoiding the use of terms like ‘old’, ‘elderly’ and ‘senior’ when mobilizing participants. This resonates well with Lave and Wenger’s (1991) notion of how the development of *identity* in a practice is a central element in the process of participation for a newcomer to a practice.

Lack of belief to have something to contribute. “My life; my opinion is nothing special.” This is a statement we often met in our mobilization process. One reason for this can strangely enough be because we avoid designating participants and consequently they have difficulties understanding why their specific contribution is interesting for the project. We often meet this when working in non-workplace, non-organisational everyday settings, in which it is hard to define the sites relevant for the project. This observation holds for both Danish and Austrian sites. The argument to approach communities defined by location or interest rather than ‘seniority’ can be repeated here. It resonates with Lave and Wenger’s (1991) understanding of situated learning and communities of practice, and how the value of participation increases with time. One could perhaps argue that we should mobilize based on what the community can contribute, rather than the individual.

Fear that technology creates loneliness. Very often we heard that senior citizens raised an anxiety around technology being the reason for loneliness among senior citizens, because for example public service is often handled via the Internet which limits direct contact between service professionals and the citizens. Our response to this of course was that the Give&Take platform always tries to re-establish some of the lost interaction between people, but we were unable to convince our participants about this.

Fear of digital illiteracy or no interest. Already during early recruitment activities we met skepticism towards participation when introducing the fact that co-design of a mobile digital platform was one of the goals of the Give&Take project. Among those remaining interested in participating, some senior citizens were very competent in handling mobile technology platforms and were ready to explore whatever technological prototype being introduced, while other citizens were less prepared for hands-on exploration of our prototypes. A crucial success parameter for ongoing mobilization was to pay equal attention to, and take equally good care of, the citizens who showed anxiety or skepticism, as the curious participants looking forward to see their ideas coming to life in the prototype. While these observations mainly hold for the *Frederiksberg* site, we observed another kind of resistance in the two *Austrian* sites. Here, we noted that having a mobile digital platform as a main component of the Give&Take project is accepted as people resigned to the fact that the future will be „online“, but to not exclude many people from the current older generation who don’t have any experience with these kind of technologies, they expressed wishes to introduce and maintain analogue ways of handling sharing of services. Even if we did not do a systematic study of attitudes towards technology, we noticed in both Denmark and Austria, and in line with (Turner et al., 2007), a general resistance towards digital technology among some of our senior citizens.

Feeling uncomfortable with co-design methods. “If we are going to do this doll-playing next time, I will quit my participation in the project.” We sometimes experienced resistance towards our ‘creative’ methods, which by some participants were seen as ‘childish’; e.g. exploring design ideas through scenario-oriented methods, through role-playing with dolls and backdrops made from collages. For some, this seriously jeopardised continuation of their participation, i.e. our mobilization work.

What’s in it for me? Finally, we were often confronted with senior citizens questioning what their possible outcome of participation might be. In exploratory projects like Give&Take it is hard to give very concrete and tangible answers to such questions. Also from an ethical perspective this implies that we have to continuously work with keeping the citizen participants engaged by creating visible and interesting outcomes of all

encounters, and making sure that participants' experiences, thoughts, concerns and ideas brought forward during these encounters, are listened to and carefully documented in our shared reports, and recognizable in iterations of our mobile platform prototypes. This resonates well with Manzini's expression of how cooperation can be understood as "an exchange in which the participants benefit from the encounter." (Manzini, 2015, p. 93). In the next section we will discuss these analytic observations of attitudes, values and actions regarding recruitment and mobilization in the perspective of our initial theoretical framework.

Discussion

In our discussion, we start by summarizing the challenges we have experienced in mobilization. With this background, we then discuss these challenges in relation to our theoretical grounding, starting with how we can further our understanding of the everyday practices of senior citizens, and then moving on to our suggested framing of this understanding by introducing negotiation as a domain in design culture. Finally, as a way forward, we conclude by proposing strategies for mobilizing senior citizens in co-design of mobile technology.

Challenges in mobilization

In our project we have encountered several challenges in mobilizing senior citizens in co-design of mobile technology. The biggest challenge in the project, regarding mobilization, was to handle the variation in perception of ageing, and to avoid unwarranted categorization through terms like 'older', 'elderly' or 'seniors'. In addition, the variations in digital literacy and relations to digital technology, posed challenges.

Also, entrance for recruitment was affected by political issues at the Danish site, and false expectations created by differences in recruiting conditions between the two sites. In general, recruiting at the Austrian sites was harder, due to lack of access to existing senior communities. Furthermore, our lack of understanding the particularities of everyday life of senior citizens challenged the mobilization process. It was for example needed to plan all the co-design activities well in advance as many of the senior citizens live a busy lifestyle and as their calendars easily become crowded with bookings and activities. Also, to understand the nature of the services they wanted, and could offer, and what they needed help with turned out to be more diverse than expected. Another challenge, the difficulties we had with creating trust, because of fear of hidden political agendas, was an unavoidable aspect of the setting, though less accentuated in Austria. In Denmark some senior citizens were also members of senior organizations that directly, through lobbying for example, work against public savings when municipalities introduce assistive technologies. There were also challenges rooted in how the project was perceived by the senior citizens, i.e. regarding their role in the project, and their perception of the methods and technology introduced in the project. As mentioned above, many senior citizens expressed doubts regarding their ability to contribute to the project, and at the same time they questioned what they could gain from it. These issues represent a mindset regarding the expectations of seniors, hampering our mobilization efforts, that we need to change. Furthermore, the senior citizens expressed fear of technology creating distance rather than connections between people. Some seniors express reluctance towards digital technology in more general terms, and a few participants expressed strong resistance towards some of our co-design methods. These issues represent a mindset regarding some of the fundamental conditions in the project, where we need to adapt our co-design methods in order to create a better dialogue with the senior citizens, that allows them to develop and take ownership of future visions where digital technology can have a positive impact on everyday life as a senior.

Everyday practices and situated elderliness

In order to address the challenges of mobilizing senior citizens in co-design of mobile technology, we need to build a better understanding of their everyday practices, and how elderliness is situated. First, we need to develop a theoretical grounding for an elaborated concept of senior citizen practice. We seek to adapt the notion of *design culture* to the field of co-design, by discussing *negotiation* as a domain of such a culture,

which is elaborated in the next section. This includes an expansion of the notion of practice for our purposes, in order to better understand co-designing with senior citizens, and in particular, the challenges of mobilization of senior citizens in co-design work. We are not leaving the concept of communities of practice behind, or the knowledge from decades of studies of work practice. For example the notion of identity being developed by becoming part of the ‘practices’ we envision are key to understanding how elderly engage in, and develop, various social exchanges and activities. Also, the notion of increased value of participation, in Lave & Wenger’s (1991) understanding of situated learning and communities of practice, is crucial for understanding how motivation can be maintained in the social activities of the senior citizens we work with. But we believe that other aspects of everyday practice can help us better understand the challenges we face in mobilizing senior citizens in design work, and we need to ask: what are then the main differences between the two perspectives on work practice and everyday practice, respectively? *Firstly*, collective goals and motivations are different. Work settings, as compared to social settings where senior citizens engage with one another in a social activity, are very different in this regard. Work practice is based on coherence and convergence. The members of a work practice share common collective goals, and maintaining the practice is a means for achieving these goals. In the social setting of engaging senior citizens in common activities, the focus is more on short-term goals than in developing a practice around a shared passion. *Secondly*, individual goals and motivations are different. From the perspective of everyday practice, people all have their own goals and aspirations. Also research shows that senior citizens are reluctant to form new social relationships, and increasing focus on maintaining a fewer number of close relations (Carstensen et al., 2003). In “social activities for elderly” there is a multitude of structuring conditions, that potentially have effect on individual motivations. The kind of production de Certeau (1994) is referring to is not only an act of contributing, but just as much, if not more, an act of resistance. For example, in our project we note that some senior citizens feel a resistance towards digital technology. *Thirdly*, an understanding of everyday practice can help us better understand the conditions for the particular “fuzzy front end of design” for senior citizens that we are addressing. This is not only about their potential reservations against digital technology in general, but rather about understanding the conditions under which “the social” shapes future technology (Taylor & Harper, 2003; e.g. the unexpected ubiquitous use of SMS) in the case of senior citizens.

Design culture - a focus on negotiation

As previously argued in the article can design be perceived as a strategy in which we work towards a better quality of life through negotiation with the context of design. In our first steps towards an approach for mobilizing senior citizens in co-design work, a central aspect of our framing is to understand *negotiation* as a domain in design culture. We interpret the term ‘negotiation’ as outlined by e.g. Björgvinsson et al. (2010). As we have presented, this interpretation of negotiation is 1) based on a democratization of design processes and 2) is dependent on the places where these negotiations unfolds. Our use of negotiation in co-design is aligned with for example Björgvinsson et al. (2010) as we use design laboratories to create, challenge and validate our designs. Negotiation in co-design thus reflects many of the specific aspects of mobilization that characterize how the senior citizens have engaged in our project. First, we resist any generalisation of the seniors as a homogeneous group, as our mobilization does not recruit participants based on age, health or other parameters we associate with unwanted categorization, but rather on a fundamental interest to contribute in the project or as members of interest- or location-based communities. Consequently, there is no ‘best’ design for the Give&Take sharing platform, serving participants equally well across both research sites, but rather an ongoing negotiation of purpose as the platform develops in the project. Second, the expected attraction of the platform is based as much on content, generated by seniors, as on suggested purpose. We expect a wide range of services to be shared on the platform, and thus what is perceived as appropriate use is continuously negotiated, and always relative to the different communities. Third, ultimately the use of the platform can be viewed as production of a new senior culture, aligning with de Certeau (1994), thus expressing the aspirations, wishes and needs of seniors, in constant negotiation with the political processes in local municipalities that shape senior life. Based on this framing of negotiation as a domain in design culture, we conclude by introducing tentative strategies for mobilizing senior citizens in co-design of mobile technology.

Concluding remarks: Strategies for mobilizing senior citizens in co-design work

The aim of the Give&Take project is to co-design a mobile digital platform that can support complex formations of publics around reciprocal sharing of services among senior citizens.. In this process, mobilization has emerged as an issue being far more complex than expected at the outset. During our project, and based on our analysis of attitudes and values among designers and senior citizens, the following strategies have emerged for addressing challenges in mobilizing senior citizens in co-design of mobile technology:

1. Understanding being ‘elderly’ as situated elderliness rather than closed categories
2. Understanding how ad hoc or loosely coupled infrastructures can define a community rather than a formal, organisational structure
3. Understanding the nature of mobilization and motivation for participation as processes that continue, and need to be supported, also after completion of the project.

Participants are never just out there, as we often imagine when entering a co-design project. They seem to disappear between our hands whenever we try to get closer, but wherever they are, they remain in their everyday setting, negotiating the practices of struggling with our design, when we go home.

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